IAP7 Rec'd PCT/PTO 12 JUN 2006

FORM PTO 1390

(REV 5-93)

US DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

TRANSMITTAL LETTER TO THE UNITED STATES

DESIGNATED/ELECTED OFFICE (DO/EO/US)

CONCERNING A FILING UNDER 35 U.S.C. §371

International Application No.

PCT/JP2004/012638

ATTORNEY DOCKET NUMBER
2006_0286A

U.S. APPLICATION NO.

(If brown, see 37 CFR 1.5)
10/570,133

Priority Date Claimed
September 1, 2004

September 1, 2004

Title of Invention

BETA-HYDROXY SHORT TO MEDIUM CHAIN FATTY ACID POLYMER

Applicant(s) For DO/EO/US

Kazunari USHIDA and Masaki KURIYAMA

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

- 1. [] This is a FIRST submission of items concerning a filing under 35 U.S.C. §371.
- 2. [X] This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. §371.
- 3. [] This express request to begin national examination procedures (35 U.S.C. §371(f)) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. §371(b) and PCT Articles 22 and 39(1).
- 4. [] A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
- 5. [] A copy of the International Application as filed (35 U.S.C. §371(c)(2))
 - a. [] is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. [] has been transmitted by the International Bureau.
 - c. [] is not required, as the application was filed in the United States Receiving Office (RO/US)
- 6. [] A translation of the International Application into English (35 U.S.C. §371(c)(2)).
- 7. [] Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. §371(c)(3)).
 - a. [] are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. [] have been transmitted by the International Bureau.
 - c. [] have not been made; however, the time limit for making such amendments has NOT expired.
 - d. [] have not been made and will not be made.
- 8. [] A translation of the amendments to the claims under PCT Article 19.
- 9. [] An oath or declaration of the inventor(s) (35 U.S.C. §371(c)(4)).
- 10. [] A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. §371(c)(5)).

Items 11. to 14. below concern other document(s) or information included:

- 11. [X] An Information Disclosure Statement under 37 CFR 1.97 and 1.98. ATTACHMENT J
- 12. [] An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
- 13. [] A FIRST preliminary amendment.
 - [] A SECOND or SUBSEQUENT preliminary amendment.
- 14. [] Other items or information:

U.S. APPLICATION NO. (# booms are 37 CFR 1.5) 10/570,133 ' INTERNATIONAL APPLICATION NO. PCT/JP2004/012638				ATTORNEY'S DOCKET NO. 2006_0286A			
15. [] The following fees are subm	CALCULATIONS	PTO USE ONLY					
Basic National Stage Fee National Stage Search Fee (Intern National Stage Examination Fee Specification/drawings in excess							
ENTER APPROP	\$0						
Surcharge of \$130.00 for furnishin claimed priority date (37 CFR 1.4	\$						
Claims	Number Filed	Number Extra	Rate				
Total Claims	- 20 =		X \$50.00	s			
Independent Claims	- 3 =		X \$200.00	\$			
Multiple dependent claim(s) (if ap	plicable)		+ \$360.00	\$			
TOTAL O	F ABOVE CAI	CULATIONS =		\$0			
[] Small Entity Status is hereb	y asserted. Above fees	are reduced by 1/2.		\$			
	SUB	TOTAL =		\$0			
Processing fee of \$130.00 for furniclaimed priority date (37 CFR 1.49	ishing the English trans 92(f)).	ation later than [] 20 [] 30 mor	oths from the earliest +	s			
	TOTAL NATIO	NAL FEE =		\$			
Fee for recording the enclosed assi appropriate cover sheet (37 CFR 3.	gnment (37 CFR 1.21(b. 28, 3.31). \$40 per prop)). The assignment must be according +	companied by an	\$			
T(OTAL FEES E	NCLOSED =		\$0			
				Amount to be refunded	s		
		·		Amount to be charged	\$		
 a. [] A check in the amount of \$ to cover. b. [] Please charge my Deposit Account A duplicate copy of this sheet is er. c. [X] The Commissioner is hereby auth. 	t No. 23-0975 in the amount nelosed.	t of \$ to cover the abov	e fees.				
overpayment to Deposit Account N	No. <u>23-0975</u> .						
NOTE: Where an appropriat must be filed and granted to r	e time limit under 3 estore the application	7 CFR 1.494 or 1.495 has r	ot been met, a petitio	on to revive (37 CFR 1.	137(a) or (b))		
9. CORRESPONDENCE ADDRES CUSTO OO(ew M. Jacob , ation No. 25,154 LIND & PONACK, L.L.P. eet, N.W., Suite 800 n, D.C. 20006-1021 (202) 721-8200						
	202) 721-8250 ne 12, 2006						

[CHECK NO. ______ [2006_0286A]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Kazunari USHIDA et al. : Mail Stop: PCT

Serial No. 10/570,133 : Attorney Docket No. 2006 0286A

Filed March 1, 2006

BETA-HYDROXY SHORT TO MEDIUM CHAIN FATTY ACID POLYMER [Corresponding to PCT/JP2004/012638 Filed September 1, 2004]

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of the references listed on attached form PTO-1449 and any additional information identified below in paragraph 3. A legible copy of each reference listed on the Form PTO-1449 is enclosed, except a copy is not provided for:

	[X]	each U.S. Patent and U.S. Patent application publication;
	0	each reference previously cited in the international application PCT/; and/or
		each reference previously cited in prior parent application Serial No.
a.	[X] This	s Information Disclosure Statement is submitted:
		nree months of the filing date (or of entry into the National Stage) of the ntitled application, or

before the mailing of a first Office Action on the merits or the mailing of a first Office Action after the filing of an RCE,

and thus no certification and/or fee is required.

1b. [] This Information Disclosure Statement is submitted

after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:

- (1) [] the certification of paragraph 2 below is provided, or
- (2) [] the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.
- 1c. [] This Information Disclosure Statement is submitted:

after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:

the certification of paragraph 2 below is provided, and

the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

- 2. It is hereby certified
 - a. [] that each item of information contained in this Information Disclosure

 Statement was first cited in any communication from a foreign patent office in a
 counterpart foreign application not more than three months prior to the filing of
 the Statement, or
 - b. [] that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement.

3. [] Consideration of the following list of additional information (including any copending or abandoned U.S. application, prior uses and/or sales, etc.) is requested. 4. For each non-English language reference listed on the attached form PTO-1449, reference is made to: a full or partial English language translation submitted herewith, a. [] b. [] a foreign patent office search report (in the English language) submitted herewith, c. [X] the concise explanation contained in the specification of the present application at pages 1 to 27, Reference DB (Brune et al.) is discussed on page 11 of the specification. d. [] the concise explanation set forth in the attached English language abstract, the concise explanation set forth below or on a separate sheet attached to the e. [] reference: 5. [] A foreign patent office search report citing one or more of the references is enclosed. Respectfully submitted, Kazunari USHIDA et al. By_ Matthew M. Jacob Registration No. 25,154

MJ/kes Washington, D.C. 20006-1021 Telephone (202) 721-8200 Facsimile (202) 721-8250 June 12, 2006 Attorney for Applicants

Sheet 1 of 5			INFORMA	TION DISCLO	SURE STATEMENT						
FORM PTO 1449 (n	nodified)			ATTY DOC	KET NO.	SER	IAL NO.				
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE				2006_02	286A 	10/	570,133 				
LIST OF REFERENCES CITED BY APPLICANT(S)				APPLICANT Kazunari USHIDA et al.							
		eral sheets if necessary) ed to PTO: June 12, 200	6	FILING DA			GROUP				
FORE				<u> </u>	IGN PATENT DOCUMENTS						
		DOCUMENT NUMBER	DATE						TION NO		
	AA	92/09211	06/1992		WO						
	AB	99/34687	07/1999		wo						
	AC	83/00435	02/1983		wo						
	·	OTHER	DOCUMENT(S) (/	Including Autho	or, Title, Date, Pertine	ent Pages, Etc.)					
	AD	Cook, S. et al., <i>Alim</i>	ent. Pharmaco	ol. Ther., Vo	ol. 12, pp. 499 to	507 (1998)					
	AE	Hara, H., Bioscience Microflora, Vol. 21, No. 1, pp. 35 to 42 (2002).									
	AF	Andoh, A. et al., Current Pharmaceutical Design, Vol. 9, pp. 347 to 358 (2003).									
	AG	Harig, J. et al., <i>The</i>	Harig, J. et al., The New England Journal of Medicine, Vol. 320, No. 1, pp. 23 to 28 (1989).								
	АН	Head, K. et al., Alternative Medicine Review, Vol. 8, No. 3, pp. 247 to 283 (2003).									
	AI	Goh, J. et al., <i>Alime</i>	nt. Pharmacol.	Ther., Vol.	17, pp. 307 to 3	320 (2003).					
	AJ	Hong, J. et al., <i>Alim</i> e	Hong, J. et al., <i>Aliment. Pharmacol. Ther.</i> , Vol. 15, pp. 1253 to 1262 (2001).								
	AK	Jacobasch, G. et al.	, Int. J. Colored	ctal Dis., Ve	ol. 14, pp. 201 to	211 (1999)					
<u> </u>	AL	Andoh, A. et al., <i>JPt</i>	EN, Journal of i	Parenteral	and Enteral Nut	rition, Vol. 2	3, No. 5, pp. S70 to	o S73 (1999)			
	АМ	Kanauchi, O. et al.,	Journal of Gas	troenterolo	gy and Hepatolo	ogy, Vol. 14,	pp. 880 to 888 (19	999).			
EXAMINER	L				DATE CONSIDER	ED					

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copthis form with next communication to applicant.

Sheet 2 of 5		INFORMA	TION DISCLO	SURE STATEMENT						
FORM PTO 1449 (modified)	IN VIIIA	ATTY DOG		SERIAL N	10				
		TMENT OF COMMERCE	2006_0		10/570,					
PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S)		APPLICANT Kazunari USHIDA et al.								
2.57 0.		eral sheets if necessary)	FILING DA			GROUP				
Date	Date Submitted to PTO: June 12, 2006			March 1, 2006						
		OTHER DOCUMENT(S) (I	including Auth	or, Title, Date, Pertinent Pages	s, Etc.)					
	BA Wächtershäuser, A. et al., <i>Eur. J. Nutr.</i> , Vol. 39, pp. 164 to 171 (2000).									
:	ВВ	Welters, C. et al., Dis. Colon Rectu	Welters, C. et al., Dis. Colon Rectum, Vol. 45, No. 5, pp. 621 to 627 (2002).							
	ВС	Mortensen, F., et al., J. Gastroente	Mortensen, F., et al., J. Gastroenterology, Vol. 31, pp. 302 to 303 (1996).							
	BD	Vernia, P. et al., <i>The Lancet</i> , Vol. 356, pp. 1232 to 1235 (2000).								
	BE	Rabbani, G. et al., The Journal of Infectious Diseases, Vol. 179, pp. 390 to 397 (1999).								
	BF	Rahman et al., Gastroenterology, Vol. 112, No. 4, A2 (1997).								
	BG	Ramakrishna, B.S. et al., <i>Gut</i> , Vol. 34, pp. 1215 to 1218 (1993).								
	ВН	Rabbani, G. et al., Gastroenterolog	Rabbani, G. et al., Gastroenterology, Vol. 121, pp. 554 to 560 (2001).							
	ВІ	Ramakrishna, B.S., The New England Journal of Medicine, Vol. 342, No. 5, pp. 308 to 313 (2000).								
	BJ	Kanauchi, O. et al., Biosci. Biotechnol. Biochem., Vol. 62, No. 9, pp. 1788 to 1790 (1998).								
	ВК	Chen, H. et al., Nutrition Research,	Chen, H. et al., <i>Nutrition Research</i> , Vol. 20, No. 12, pp. 1725 to 1733 (2000).							
	BL	Chen, H. et al., Journal of the Amer	rican Colle	ge of Nutrition, Vol. 20,	No. 1, pp	o. 44 to 49 (2001).				
	вм	Parisi, G. C., Digestive Diseases at	nd Science	es, Vol. 47, No. 8, pp. 10	697 to 17	04 (2002).				
EXAMINER	I			DATE CONSIDERED						

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include cop. this form with next communication to applicant.

Sheet 3 of 5		INFORMAT	TION DISCLOSURE STATEMENT						
FORM PTO 1449 (<i>modified</i>) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S)			ATTY DOCKET NO. 2006_0286A	SERIAL 1 10/570,					
			APPLICANT Kazunari USHIDA et al.						
(Use seve	ed to PTO: June 12, 2006	FILING DATE GROUP						
Date	Γ		March 1, 2006						
	CA	Bijkerk, C., Aliment Pharmacol. Th	er., Vol. 19, pp. 245 to 251 (2004)).					
	СВ	Fiordaliso, M. et al., <i>Lipids</i> , Vol. 30	Fiordaliso, M. et al., <i>Lipids</i> , Vol. 30, No. 2, pp. 163 to 167 (1995).						
	СС	Delzenne, N. et al., Am. J. Clin. Nu	utr., Vol. 73, pp. 456S to 458S (20	01).					
	CD	Marcil, V. et al. <i>J. Nutr.</i> , Vol. 133, p	pp. 2180 to 2183 (2003).						
	CE	E McIntyre, A. et al. <i>Gut</i> , Vol. 34, pp. 386 to 391 (1993).							
	CF	Perrin, P. et al., <i>Gut</i> , Vol. 48, pp. 53 to 61 (2001).							
	CG	D'Argenio, G. et al., <i>Gastroenterology</i> , Vol. 110, pp. 1727 to 1734 (1996).							
	СН	Leschelle, X. et al., Eur. J. Biocher	n., Vol. 267, pp. 6435 to 6442 (20	00).					
	CI	Augenlicht, L. et al., Cancer Resea	arch, Vol. 59, pp. 6005 to 6009 (19	999).					
	CJ	Heerdt, B. et al., Cancer Research	, Vol. 54, pp. 3288 to 3294 (1994)).					
	СК	Heerdt, B. et al., The Journal of Bio	ological Chemistry, Vol. 266, No. 2	28, pp. 19	120 to 19126 (1991).				
	CL	Pouillart, P., Life Sciences, Vol. 63	, No. 20, pp. 1739 to 1760 (1998)						
	CM Anderson, A., Microbiological Reviews, Vol. 54, No. 4, pp. 450 to 472.								
EXAMINER			DATE CONSIDERED						

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy this form with next communication to applicant.

Sheet 4 of 5	<u> </u>	INFORMAT	TION DISCLO	SLIDE STATEMENT						
FORM PTO 1449 (mo	-diffod)	HAI VIAMEN	ATTY DOCKET NO. SERIAL NO.			10				
		THENT OF COMMEDCE	2006_02		10/570,133					
PATE	NT AN	TMENT OF COMMERCE D TRADEMARK OFFICE	APPLICANT Kazunari USHIDA et al.							
	LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)									
Date S	Submitte	ed to PTO: June 12, 2006	March 1,		GROUP					
OTHER DOCUMENT(S) (I			Including Author	or, Title, Date, Pertinent Pages	s, Etc.)					
	DA	Lee, S., Biotechnology and Bioeng	gineering, Vol. 49, pp. 1 to 14 (1996).							
	DB	Brune, V. et al., Z. Tierphysiol., Tie	Brune, V. et al., Z. Tierphysiol., Tierenährg. u. Futtermittelkde., Vol. 38, pp. 81 to 93 (1977).							
	DC	Forni, D. et al., <i>Ann. Zootech.</i> , Vol.	. 48, pp. 16	63 to 171 (1999).						
	DD	Forni, D. et al., J. Anim. Physiol. A. Anim. Nutr., Vol. 81, pp. 31 to 40 (1999).								
	DE	Forni, D. et al., <i>J. Anim. Physiol. A. Anim. Nutr.</i> 81, pp. 41 to 50 (1999).								
	DF	Embleton, J. et al., J. Microencapsulation, Vol. 9, No. 1, pp. 73 to 87 (1992).								
	DG	Kusaka, S. et al., Appl. Microbiol. E	Kusaka, S. et al., Appl. Microbiol. Biotechnol., Vol. 47, pp. 140 to 143 (1997).							
	DH	McBee, R., The Journal of Experim	McBee, R., The Journal of Experimental Zoology Supplement, Vol. 3, pp. 55 to 60 (1989).							
	DI	Stevens, C. et al., Physiological Re	eviews, Vol	l. 78, No. 2, pp. 393 to 4	427 (1998	3).				
	DJ	Marounek, M. et al., Physiol. Res.,	Vol. 47, pp	o. 259 to 263 (1998).						
	DK	Jamroz, D. et al., Comparative Biod	Jamroz, D. et al., Comparative Biochemistry and Physiology Part A, Vol. 131, pp. 657 to 668 (2002).							
	DL	Kihara, M. et al. Comparative Bioch	hemistry ar	nd Physiology Part A, V	ol. 132, p	p. 333 to 340 (2002).				
	DM	Mountfort, D. et al., Applied and En	nvironment	al Microbiology, Vol. 68	, No. 3, p	p. 1374 to 1380 (2002).				
EXAMINER				DATE CONSIDERED						

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copthis form with next communication to applicant.

Sheet 5 of 5 INFORMATION DISCLOSURE STATEMENT										
FORM PTO 1449 (m		TMENT OF COMMERCI	E	ATTY DOC 2006_02				AL NO. 70,133		
PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S)			APPLICANT Kazunari USHIDA et al.							
	•	eral sheets if necessary) ed to PTO: June 12, 200)6	FILING DA' March 1,				GROUP		
			U.	S. PATENT DO	OCUMENTS					
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME CLASS SUBCLASS				FILING DATE IF APPROPRIATE		
	EA	4,663,308	05/1987	Saf	ffran et al.					
	,	T	FORE	EIGN PATENT	T DOCUMENTS	-			<u></u>	
	ļ!	DOCUMENT NUMBER	DATE	С	COUNTRY	CLASS	s	SUBCLASS	TRANSLATI YES	ION NO
	ЕВ	H11-092552	04/1999		JP				abstract only	
	EC	H06-179618	06/1994		JP	<u> </u>			abstract only	
	ED	H10-324642	12/1998		JP				abstract only	
	EE	2000-143538	05/2000		JP				abstract only	
	т	OTHER	DOCUMENT(S) (I	Including Auth	or, Title, Date, Pertine	ent Pages, i	Etc.)			
	EF	Slater, S.C. et al., Jo	oumal of Bacte	<i>∍riology</i> , Vo	ol. 170, No. 10, p	p. 4431 f	to 44	l36 (1988).		
	EG	Schubert, P. et al., J	Schubert, P. et al., Journal of Bacteriology, Vol. 170, No. 12, pp. 5837 to 5847 (1988).							
	EH	Poirier, Y. et al., Sci	ence, Vol. 256	, pp. 520 tc	o 523 (1992).					
	EI	Younes, H. et al., Th	ne Journal of N		л. 125, No. 4, pp	. 1010 tc	 5 101	6 (1995).		
	EJ	Okayasu, I. et al., G	astroenterolog	<i>ly</i> , Vol. 98,	pp. 694 to 702 (1	1990).				
	EK	Tanaka, Y. et al., Eu	ır. J. Biochem.	, Vol. 118,	pp. 177 to 182 (1	1981).				
	EL	Mochizuki, M. et al.,	Polymers for A	Advanced 1	Technologies, Vo	פ, 8, lc.	203	to 209 (1996)).	
EXAMINER /	James	Rogers/			DATE CONSIDERS	ED	08/	/11/2009		

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include cop. this form with next communication to applicant.